Agency for Healthcare Research and Quality
Advancing Excellence in Health Care

NATIONAL QUALITY MEASURES CLEARINGHOUSE

General

Title

Pancreatic cancer: percentage of patients who undergo resection for pancreatic cancer who are treated in a multidisciplinary effort with a surgeon, medical oncologist, and a radiation oncologist.

Source(s)

Bilimoria KY, Bentrem DJ, Lillemoe KD, Talamonti MS, Ko CY, American College of Surgeons Pancreatic Cancer Quality Indicator Development Expert Panel. Assessment of pancreatic cancer care in the United States based on formally developed quality indicators. J Natl Cancer Inst. 2009 Jun 16;101(12):848-59. PubMed

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percentage of patients who undergo resection for pancreatic cancer who are treated in a multidisciplinary effort with a surgeon, medical oncologist, and a radiation oncologist.

Note: This indicator can also be measured at the hospital level. See the related National Quality Measures Clearinghouse (NQMC) summary Pancreatic cancer: does the institution that performs resection for pancreatic cancer treat their patients in a multidisciplinary effort with a surgeon, medical oncologist, and a radiation oncologist?

Rationale

There is considerable variability in outcomes among hospitals in the United States for many procedures and medical conditions, particularly for complex surgeries such as pancreatectomy for malignancy. Short-term and long-term outcomes of patients at some hospitals are considerably worse than at other

hospitals; however, it has been difficult to identify the factors responsible for this variability. Hospitals with poor outcomes are left with little guidance on where to focus quality improvement efforts. Thus, efforts have focused on identifying quality indicators or measures that can be used to standardize care and ensure that patients are managed in accordance with established recommendations.

Pancreatic cancer outcomes vary considerably among hospitals. Assessing pancreatic cancer care by using quality indicators could help reduce this variability.

Evidence for Rationale

Begg CB, Cramer LD, Hoskins WJ, Brennan MF. Impact of hospital volume on operative mortality for major cancer surgery. JAMA. 1998 Nov 25;280(20):1747-51. PubMed

Bentrem DJ, Brennan MF. Outcomes in oncologic surgery: does volume make a difference. World J Surg. 2005 Oct;29(10):1210-6. [40 references] PubMed

Bilimoria KY, Bentrem DJ, Lillemoe KD, Talamonti MS, Ko CY, American College of Surgeons Pancreatic Cancer Quality Indicator Development Expert Panel. Assessment of pancreatic cancer care in the United States based on formally developed quality indicators. J Natl Cancer Inst. 2009 Jun 16;101(12):848-59. PubMed

Birkmeyer JD, Dimick JB, Birkmeyer NJ. Measuring the quality of surgical care: structure, process, or outcomes. J Am Coll Surg. 2004 Apr;198(4):626-32. [27 references] PubMed

Birkmeyer JD, Siewers AE, Finlayson EV, Stukel TA, Lucas FL, Batista I, Welch HG, Wennberg DE. Hospital volume and surgical mortality in the United States. N Engl J Med. 2002 Apr 11;346(15):1128-37. PubMed

Birkmeyer JD, Sun Y, Goldfaden A, Birkmeyer NJ, Stukel TA. Volume and process of care in high-risk cancer surgery. Cancer. 2006 Jun 1;106(11):2476-81. PubMed

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Fong Y, Gonen M, Rubin D, Radzyner M, Brennan MF. Long-term survival is superior after resection for cancer in high-volume centers. Ann Surg. 2005 Oct;242(4):540-4; discussion 544-7. PubMed

Gordon TA, Bowman HM, Tielsch JM, Bass EB, Burleyson GP, Cameron JL. Statewide regionalization of pancreaticoduodenectomy and its effect on in-hospital mortality. Ann Surg. 1998 Jul;228(1):71-8. PubMed

Halm EA, Lee C, Chassin MR. Is volume related to outcome in health care? A systematic review and methodologic critique of the literature. Ann Intern Med. 2002 Sep 17;137(6):511-20. [115 references] PubMed

Ko CY, Maggard M, Agustin M. Quality in surgery: current issues for the future. World J Surg. 2005 Oct;29(10):1204-9. [51 references] PubMed

Lieberman MD, Kilburn H, Lindsey M, Brennan MF. Relation of perioperative deaths to hospital volume among patients undergoing pancreatic resection for malignancy. Ann Surg. 1995 Nov;222(5):638-45. PubMed

Primary Health Components

Pancreatic cancer; resection; multidisciplinary treatment

Denominator Description

Number of patients who undergo resection for pancreatic cancer

Numerator Description

Number of patients who undergo resection for pancreatic cancer who are treated in a multidisciplinary effort with a surgeon, medical oncologist, and a radiation oncologist

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A formal consensus procedure, involving experts in relevant clinical, methodological, public health and organizational sciences

Additional Information Supporting Need for the Measure

Unspecified

Extent of Measure Testing

Potential quality indicators were identified from the literature, consensus guidelines, and interviews with experts. A panel of 20 pancreatic cancer experts ranked potential quality indicators for validity based on the RAND/UCLA Appropriateness Methodology. The rankings were rated as valid (high or moderate validity) or not valid. Adherence with valid indicators at both the patient and the hospital levels and a composite measure of adherence at the hospital level were assessed using data from the National Cancer Data Base (2004-2005) for 49,065 patients treated at 1,134 hospitals. Summary statistics were calculated for each individual candidate quality indicator to assess the median ranking and distribution. Of the 50 potential quality indicators identified, 43 were rated as valid (29 as high and 14 as moderate validity).

Refer to the reference listed below for further details.

Evidence for Extent of Measure Testing

Bilimoria KY, Bentrem DJ, Lillemoe KD, Talamonti MS, Ko CY, American College of Surgeons Pancreatic Cancer Quality Indicator Development Expert Panel. Assessment of pancreatic cancer care in the United States based on formally developed quality indicators. J Natl Cancer Inst. 2009 Jun 16;101(12):848-59. PubMed

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Hospital Inpatient

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Single Health Care Delivery or Public Health Organizations

Statement of Acceptable Minimum Sample Size

Unspecified

Target Population Age

Unspecified

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Prevention and Treatment of Leading Causes of Mortality

Institute of Medicine (IOM) National Health Care Quality

Report Categories

IOM Care Need

Getting Better

Living with Illness

IOM Domain

Effectiveness

Data Collection for the Measure

Case Finding Period

Unspecified

Denominator Sampling Frame

Patients associated with provider

Denominator (Index) Event or Characteristic

Clinical Condition

Institutionalization

Therapeutic Intervention

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions
Number of patients who undergo resection for pancreatic cancer

Exclusions
None

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions

Number of patients who undergo resection for pancreatic cancer who are treated in a multidisciplinary effort with a surgeon, medical oncologist, and a radiation oncologist

Exclusions
None

Numerator Search Strategy

Episode of care

Data Source

Administrative clinical data

Paper medical record

Registry data

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

Unspecified

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Standard of Comparison

not defined yet

Identifying Information

Original Title

If a patient undergoes resection for pancreatic cancer, then the patient should be treated in a multidisciplinary effort with a surgeon, medical oncologist, and a radiation oncologist. [Patient]

Measure Collection Name

Pancreatic Cancer Quality Indicators

Submitter

Karl Y. Bilimoria, MD, MS on behalf of the American College of Surgeons' Pancreatic Cancer Quality Indicator Development Expert Panel - Independent Author(s)

Developer

American College of Surgeons - Medical Specialty Society

Funding Source(s)

- American College of Surgeons, Clinical Scholars in Residence program to Karl Y. Bilimoria
- American Cancer Society, Illinois Division to David J. Bentrem
- National Cancer Institute to Clifford Y. Ko

Composition of the Group that Developed the Measure

The American College of Surgeons' Pancreatic Cancer Quality Indicator Development Expert Panel included surgeons (Peter J. Allen, MD, Memorial Sloan-Kettering Cancer Center; Gerard V. Aranha, MD, Stritch School of Medicine, Loyola University Chicago; David J. Bentrem, MD, Feinberg School of Medicine, Northwestern University; Douglas B. Evans, MD, M.D. Medical College of Wisconsin; Keith D. Lillemoe, MD, Indiana University School of Medicine; Peter W. T. Pisters, MD, M.D. Anderson Cancer Center; Richard D. Schulick, MD, Johns Hopkins University School of Medicine; Stephen F. Sener, MD, NorthShore University HealthSystem; Mark S. Talamonti, MD, NorthShore University HealthSystem; Selwyn M. Vickers, MD, University of Minnesota; Andrew L. Warshaw, MD, Massachusetts General Hospital, Harvard Medical School; Charles J. Yeo, MD, Jefferson Medical College, Thomas Jefferson University), medical oncologists (David P. Kelsen, MD, Memorial Sloan-Kettering Cancer Center; Vincent J. Picozzi, MD, Virginia Mason Medical Center; Margaret A. Tempero, MD, University of California at San Francisco Medical Center), radiation oncologists (Ross A. Abrams, MD, Rush University Medical Center; Christopher G. Willett, MD, Duke University School of Medicine), a pathologist (N. Volkan Adsay, MD, Emory University School of Medicine), a radiologist (Alec J. Megibow, MD, MPH, New York University Medical Center), and a gastroenterologist (Stuart Sherman, MD, Indiana University School of Medicine).

Financial Disclosures/Other Potential Conflicts of Interest

Unspecified

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2009 Jun

Measure Maintenance

Unspecified

Date of Next Anticipated Revision

Unspecified

Measure Status

This is the current release of the measure.

The measure developer reaffirmed the currency of this measure in January 2017.

Measure Availability

Source available from the Journal of the National Cancer Institute Web site .

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NQMC Status

This NQMC summary was completed by ECRI Institute on February 22, 2012. The information was verified by the measure developer on March 16, 2012.

The information was reaffirmed by the measure developer on January 31, 2017.

Copyright Statement

Production

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